

AC 45-48

Radnorshire County Council.



Annual Report

OF THE
Medical Officer of Health

FOR THE
YEAR 1933,

BY

J. W. MILLER, M.D., D.P.H.,
Barrister-at-Law,
County Medical Officer of Health.



Presteigne :
Beddoes, County Printing Works.

Radnorshire County Council.



Annual Report

OF THE

Medical Officer of Health

FOR THE

YEAR 1933,

BY

J. W. MILLER, M.D., D.P.H.,

Barrister-at-Law,

County Medical Officer of Health.

County of Radnor.

PUBLIC HEALTH AND HOUSING COMMITTEE.

Chairman : Alderman B. P. Lewis.

Aldermen William Thomas, Major Thompson, and Col. Sir C. Venables Llewelyn, Bart. ; Councillors Abberley, Ellway, Mrs. Gibson Watt, Hughes, Lloyd, J. P. Price, Rd. Price, Protheroe, Reynolds, Sibbald, and Capt. the Hon. Reginald Walsh.

MATERNITY AND CHILD WELFARE AND MIDWIVES ACT COMMITTEE.

The Members of the Public Health and Housing Committee, and Mrs. Coltman Rogers, Mrs. W. A. Sims, Mrs. Alfred Thomas, Lady Venables Llewelyn, and Dr. John Murray.

DISTRICT MEDICAL OFFICERS OF HEALTH.

NAME.	URBAN DISTRICT.
G. H. H. Booth, B.Sc., M.B., Ch.B., Wylcwm Street, Knighton.	Knighton.
J. J. McCormick, M.B., D.P.H., Hafod Awen, Llandrindod Wells.	Llandrindod Wells.
R. R. Walker, M.A., M.D., Warden Court, Presteigne.	Presteigne.
	RURAL DISTRICT.
G. P. Driver, M.R.C.S., L.R.C.P., Tynyberllan, Builth Wells.	Colwyn.
J. A. K. Griffiths, M.B., M.R.C.S., Wylcwm House, Knighton. [L.R.C.P.]	Knighton.
P. Wallice, M.R.C.S., L.R.C.P., The Laurels, New Radnor.	New Radnor.
W. W. Wilson, M.B., Ch.B. Broad Street, Hay.	Painscastle.
H. T. Lippiatt, M.D., M.C., Bryncoed, Rhayader.	Rhayader.

DISTRICT MEDICAL OFFICERS (Poor Law) AND PUBLIC VACCINATORS.

The District Medical Officers of Health, and Drs. †Q. R. Darling,
F. J. Jayne, J. Murray, H. W. Powell and O. W. D. Steel.

†Public Vaccinator only.

VACCINATION OFFICERS.

Messrs. W. J. Beavan, H. Batts, G. W. Griffiths, A. R. Hicks,
A. L. James, J. P. Lingen, D. J. Pugh, and G. P. Weale.

SANITARY INSPECTORS.

NAME AND ADDRESS.	DISTRICT.	QUALIFICATIONS.
D. J. Phillips, Town Hall, Knighton.	Knighton Urban	Cert. R. San. Inst.
R. J. Morris, Town Hall, Llandrindod Wells.	Llan'dod Urban	Cert. R. San. Inst.
R. P. Morris, Westfield, Kington.	Presteigne Urban	Cert. R. San. Inst.
J. Evans, Victoria House, Erwood.	Colwyn Rural	Cert. R. San. Inst.
D. Davies, Chandos Temperance Hotel, Knighton.	Knighton Rural	—
J. P. Lingen, Broad Street, New Radnor.	New Radnor Rural	—
J. J. Price, Hardwick House. Clifford, Herefordshire.	Painscastle Rural	—
R. Worthing, Tegid House, Rhayader.	Rhayader Rural	—

Clerk to the County Council : G. W. Moseley.

Inspector of Midwives : Miss J. Todd, S.R.N.,
Cert. C.M.B., C.R.San.Inst.

Inspector under the Sale of Food and Drugs : C. S. W. Powell.

County Analyst : Herbert J. Evans, B.Sc., F.I.C.

Veterinary Surgeon : J. P. Railton, M.R.C.V.S.

Clerk to the Medical Officer of Health : R. P. Bufton.

To the Chairman and Members of the Radnorshire County Council.

I have the honour to present my thirteenth Annual Report on the Health Administration of the County for the year 1933.

POPULATION—(Page 6). Information in regard to the decrease of population was given on pages 4 and 5, Annual Report for 1931 ; there is a regular annual decrease.

BIRTH RATE—(Pages 6 & 7). The rate for the County was 15·1 (urban 11·9, rural 16·3) compared with 14·4 for England and Wales.

DEATH RATE—(Pages 9-12). The crude rate for the County was 11·8 (urban 14·8, rural 10·6) compared with 12·3 for England and Wales. The principal causes of death are given on page 11.

STILL BIRTHS—(Pages 7, 8, 22). The rate per total births for the 5 years 1929-33 is 53. More accurate conclusions could be drawn from a rate covering a period of 10 years.

The causes as ascertained by the Health Visitors, during the 10 years 1922-31, are given on pages 8 and 9.

In 49 per cent of the cases there were complications of labour (including ante-natal hæmorrhage), in 25 per cent disease of the foetus (15 per cent premature, 5 per cent congenital malformations) and in 14 per cent illness, etc., of the mother.

MATERNAL MORTALITY—(Page 19). The rates for the 5 years 1929-32 show an improvement (page 18) in comparison with previous 5 yearly periods. Information in regard to booking shows that in a number of cases no adequate provision for ante-natal care can be made, and there need only be 2 deaths per annum to bring the rate pu to 6 per 1,000 births.

INFECTIOUS DISEASES—Pages 27-31. In the absence of a Central Isolation Hospital there should be arrangements for the use of existing hospitals for the isolation of cases of Smallpox, Scarlet Fever, Diphtheria and Typhoid Fever. In the 3 Hospitals at Knighton, Llandrindod Wells and Rhayader, only one disease can be treated at a time, but by co-operation between all the District Sanitary Authorities, accommodation would always be available for any particular disease.

INFANTILE MORTALITY—(Pages 12 and 17). Particulars of rates per 1,000 live births in regard to the 10 yearly periods 1911-20 and 1921-30 are as follows :—

PERIOD.	Under 1 month.			1-3 months.			3-6 months.		
	U.	R.	C.	U.	R.	C.	U.	R.	C.
1911-20	45·4	38·1	39·7	8·1	12·4	11·5	5·0	9·9	8·8
1921-30	31·3	33·6	33·2	8·1	13·9	12·6	3·5	5·3	4·9

PERIOD.	6-12 months.			Under 1 year.		
	U.	R.	C.	U.	R.	C.
1911-20	16·2	8·5	10·2	75	69	70
1921-30	2·4	6·3	5·4	45	59	56

Comparing the two periods, there has been a decrease of 20 per cent in the rate for the County (urban districts 40 per cent, rural districts 14 per cent) ; the decrease in the rate for the urban districts is nearly three times that of the rural.

In the rate under 1 month (Neo-natal), the decrease was 16 per cent for the County (urban districts 31 per cent, rural 12 per cent). The greatest reduction in infantile mortality during the 10 years, 1921-30, was in the periods 3-6 months and 6-12 months, in the latter period being much greater in the urban districts. Additional information in regard to Neo-natal death rates is given on pages 15.

Particulars of the causes of death, as given by the Registrar-General, for the periods 1911-20 and 1921-30 are given in Table III., Appendix. Over one-half of the deaths were in the group Congenital Debility, Premature Birth, and Malformations ; Respiratory disease (for the most part Bronchitis and Pneumonia) comes next, followed by Infectious Disease, Diarrhœa, etc., and Violence. The number of deaths from Tuberculosis was much less in the period 1921-30.

During the 10 years 1911-30, 18 deaths under 1 year (urban 4, rural 14) occurred from Bronchitis, and 18 (urban 4, rural 14) from Pneumonia, and during 1921-30 there were 7 deaths (urban 1, rural 6) from Bronchitis and 19 (rural) from Pneumonia. Two deaths from Measles (urban) occurred in the period 1911-20 and none in the period 1921-30 ; 16 deaths (urban 2, rural 14) occurred from Whooping Cough in the first period and 8 (urban 1, rural 7) in the second ; 1 death (rural) from Diphtheria occurred in each of the periods, and 5 (urban 2, rural 3) from Influenza in the first period, and 1 (rural) in the second.

The information obtained by the Health Visitors in regard to causes of infantile deaths, given on page 16, shows that the majority of the deaths in the group Congenital Debility, Premature Birth, etc., occurred during the first month.

The results of an investigation regarding the causation of pre-natal and neo-natal deaths by Dr. Cruickshank, at the Glasgow Royal Maternity and Women's Hospital, were published by the Medical Research Council in March, 1930 ; post-mortem examinations were made on 800 infants.

Of the deaths 67·5 per cent (the majority) were considered to be due to asphyxia neonatorum, congenital atelectasis, prematurity, or birth injury ; 29·7 per cent to some infective condition in the infant ; and 2·8 per cent to developmental defects and anomalies incompatible with survival. It is mentioned that in a large proportion of cases no cause could be found ; in some cases the cause was found to be due to disease of the mother, toxæmias of pregnancy, accidental ante-partum hæmorrhage, and hæmorrhage from placenta prævia. The author states that the effects of ecbohic drugs, and accidental or deliberate violence or over-exertion, could not be overlooked. It is in connection with the prevention of still births and neo-natal deaths that an ante-natal examination by a Doctor is so important ; particulars of work under the ante-natal scheme, etc., are given on pages 17 & 18, there has been an increase in the number of examinations in comparison with the year 1932.

MENTAL DISEASE—(Page 40). There has been a distinct reduction in cases of Tuberculosis during the last 30 years, but unfortunately this does not apply to Mental Disease. Information given by Dr. Drummond, the Medical Superintendent of the Mid-Wales Counties Mental Hospital shows that of 65 patients admitted during 1931, 16 (25 per cent) were under 25 years and 48 (74 per cent) under 45 years of age. Facilities for examination of cases in the early stages are now provided.

Heredity is an important factor in Mental Disease and Mental Deficiency (more especially the former), on this account it is important that every inducement should be given to lead to the better type of men and women being able to remain on the land, instead of migrating to the towns. Intermarriage, where there is a family history of mental disease, leads to an increase in the number of mental cases.

HOUSING—(Pages 48-50). Particulars of overcrowding, as estimated from the census figures for 1931, are given on page 48. Additional houses are needed, especially in the rural districts, and can be provided under the Act of 1930 ; insufficient use is made of the Housing (Rural Workers) Acts of 1926 and 1931.

WATER SUPPLIES—(Page 50). On account of the drought in 1933, attention has been directed to inadequate or unsatisfactory supplies in the districts. A proper water supply is of the first importance.

In conclusion I desire to express my thanks to those Members of the County Council who have given me their support, and to the members of the staff for their loyal co-operation and assistance.

I have the honour to be,

Your obedient servant,

J. W. MILLER,

County Medical Officer of Health.

Public Health Department,
County Buildings,
Llandrindod Wells,
30th June, 1934.

Annual Report.



AREA AND POPULATION.

Full particulars were given on pages 6 and 8, Annual Report for 1923, and on pages 5 and 6, Report for 1925.

Particulars in regard to population obtained through the census taken on 26-27th April, 1931, were given on page 8, Report for 1931.

The Registrar-General gives the following estimates of the population for 1933: Urban Districts, 5,730; Rural Districts, 15,120; County, 20,850.

The population of the 3 Urban Districts is as follows: Knighton, 1842; Llandrindod Wells, 2737; Presteigne, 1151. The population of the 5 Rural Districts is given as follows: Colwyn, 1,934; Knighton, 3,788; New Radnor, 2,554; Painscastle, 2,112; Rhayader, 4,732.

NATURAL AND SOCIAL CONDITIONS.

Particulars are given on pages 8 and 9, Annual Report for 1925.

I gave information in regard to rainfall on pages 8 and 9 of my Annual Report for 1925, and on pages 6 and 7, Report for 1932.

The occupation of the inhabitants is referred to on pages 23-27, Annual Report for 1923, on page 9, Annual Report for 1930, and on pages 24-27, Report for 1931.

RATEABLE VALUE & INHABITED HOUSES.

Particulars for each district are given on page 7, Annual Report for 1930.

BIRTH RATE.

LIVE BIRTHS.—The total number of live births registered in the County during 1933 was 315, compared with 351 in 1932; the rate was 15·1 per 1000 of the population, compared with 16·7 in 1932, and 16·5 for the five years, 1926-30. There were 299 legitimate births (males 144, females 155), and 16 illegitimate births (males 5, females 11).

STILL BIRTHS.—The total number of still births registered in the County was 8, compared with 13 in 1932; the rate per 1000 of the population was '38 (urban '17, rural '46) compared with '62 for England and Wales.

There were 7 legitimate births (males 6, female 1), and 1 illegitimate birth (male).

ILLEGITIMATE BIRTHS.

(1) Of the 16 illegitimate live births in 1933, 6 were in the Urban, and 10 in the Rural Districts. The percentage of total live births was 4'9 (Urban 8'7, Rural 4'9) compared with 8'1 (Urban 6'7, Rural 8'4) for the five years 1928-32. The percentage for England and Wales for 1932 was 4'4.

(2) The male illegitimate still-birth was in a rural district. The percentage of total still-births was 12'5.

Particulars in regard to rates (per 1,000 of population) for the various districts for 1933 are as follows :—

Areas.	No. of Births.		Birth-rate.		Still births per 1000 total births.
	Live.	Still.	Live.	Still.	
URBAN DISTRICTS:					
Knighton ...	22	1	11·9	·54	43
Llandrindod Wells...	25	—	9·1	—	—
Presteigne ...	21	—	18·2	—	—
RURAL DISTRICTS:					
Colwyn ...	32	—	16·5	—	—
Knighton ...	62	2	16·4	·53	31
New Radnor ...	41	1	16·1	·39	24
Painscastle ...	31	2	14·7	·95	61
Rhayader ...	81	2	17·1	·42	24
Urban Districts ...					
Rural Districts ...	68	1	11·9	·17	14
Administrative County	247	7	16·3	·46	28
England and Wales ...	315	8	15·1	·38	25
	—	—	14·4	·62	41
					(1932)

The number of still-births for the 5 years 1928-32 was as follows :—

	1928	1929	1930	1931	1932	Total.	Per 1000 total births.
Urban	2	4	4	5	3	18	46
Rural	13	12	17	25	10	77	55
County	15	16	21	30	13	95	53

The rate was higher in the rural districts.

The rate for England and Wales (all areas) for the same period was 41, and for Wales (all areas) 55 ; the average rate for Wales II. (which consists of Anglesey, Carnarvon, Cardigan, Denbigh, Flint, Merioneth, Montgomery, Pembroke and Radnor) was for the 2 years 1931 and 1932, 53.

CAUSES OF STILL BIRTHS.

During the 10 years 1922-31, 164 were notified in the County and the cause was investigated in 151 cases (92%) by the Health Visitors ; 14 of these were illegitimate.

In 7 cases the birth took place before the arrival of the midwife, and in 12 cases (vertex presentation) the cause was unknown. Particulars were obtained in the remaining 132 cases.

Sixty-two, nearly one half were primi-para. It was ascertained that there had been previous stillbirths or miscarriages as follows :—

	One.	More than one.
Stillbirth	18	12
Miscarriage	6	1
	<hr/>	<hr/>
Total	24	13

In 30 cases (23%) there had been one or more still births, and in 7 (5·3%) one or more miscarriages.

The causes were as follows :—Disease of foetus, 37 ; illness of mother 21 ; complications of labour 74.

DISEASES OF FOETUS.—These were: Prematurity 22 ; macerated 6 ; spina bifida 3 ; anacephalus 2 ; hydrocephalus 2 ; hydramnios 1 ; and oedomatous foetus and placenta 1.

Of the 22 premature, 3 were macerated, in 4 cases there was malpresentation (breech 3, face 1), in one case twins. Syphilis was the probable cause of prematurity in one case, the other associations were :—Debility of mother 1, albuminuria 1, and marginal placenta 1.

Syphilis was the probable cause in 2 of the 6 macerated foeti ; in the case of hydramnios there was persistent occipito-posterior presentation.

ILLNESS, ETC. OF MOTHER.—These were described as follows : Eclampsia 2, albuminuria 7, debility 4, hyperemesis 1, fibroids 1, syphilis 1, heart disease 1, shock due to a fall 2, and in 2 cases the mothers did heavy work up to the time of the birth.

COMPLICATIONS OF LABOUR.—These were as follows : Contracted pelvis 12 ; malpresentations 13 (breech 8, foot 3, transverse 1, occipito-posterior 1) ; prolapse of cord 7 ; pressure on cord 4 (one short cord) ; difficult labour etc. 25 (6 large foeti, in one case flat pelvis ; fibroids 1 ; twins 1 ; 1 puerperal sepsis and maternal death) ; ante-partum hæmorrhage 7 (accidental 1, placenta prævia 1) ; diseased placenta 3 ; probable syphilis 1 ; other 2.

GENERAL REMARKS.—A good many of the causes are preventable, and it is on this account that an ante-natal examination is so important, further reference to this is made later in the Report.

DEATH RATE.

The total number of deaths, which occurred during 1933 in the County (after due correction for residents, who died outside the County, and non-residents who died in the County) was 246, compared with 255 in 1932.

Of the deaths 85 (males 42, females 43) occurred in the Urban, and 161 (males 82, females 79) occurred in the Rural Districts.

Particulars in regard to death rates (per 1,000 of the population) for 1933, and for the 5 yearly period 1926-30 are as follows :—

Areas.	Number of Deaths 1933.	Crude Death Rate 1933.	Standardised Death Rates.	
			1933.	1926-30.
Urban Districts :				
Knighton ...	35	19·0	13·7	12·5
Llandrindod Wells	32	11·7	9·0	8·1
Presteigne ...	18	15·6	10·6	11·3
Rural Districts :				
Colwyn ...	19	9·8	8·4	9·2
Knighton ...	38	10·0	8·1	8·5
New Radnor ...	24	9·4	6·6	9·2
Painscastle ...	29	13·7	10·5	8·4
Rhayader ...	51	10·8	7·9	9·4
Urban Districts ...	85	14·8	10·4	9·7
Rural Districts .	161	10·6	7·5	8·4
Administrative				9·0
County ...	246	11·8	8·6	
England and Wales	—	†12·3	—	†12·1

†Death rate.

On page 7 of my Annual Report for 1926, I gave the standardising factors for each district in the County. By means of these factors corrections can be made for any difference in age and sex distribution, in comparison with England and Wales as a whole.

The following were the principal causes of death for the year 1933.

Reference to particular diseases is given later in the Report.

Causes of Death.	1933. No. of Deaths.	1933. Percentage of Total Deaths.	1926-30. Percentage of Total Deaths.
Diseases of Circulatory System (Heart Disease 66, Other Disease 8) ...	74	30·1	22·3
Cancer, Malignant Disease ...	27	11·0	11·9
Tuberculosis (Pulmonary 10, Non-Pulmonary 8)	18	7·3	6·7
Diseases of Respiratory (System including Bronchitis 9, Pneu- monia 8) ...	17	6·9	8·6
Cerebral Hæmorrhage, etc. ...	16	6·5	6·2
Violence (Suicide 2, Other 9)	11	4·5	3·1
Congenital Debility, Pre- mature Birth, Malfor- mation, etc. ...	10	4·1	5·2
Infectious Disease (other than Tuberculosis) ...	10	4·1	4·9
Digestive Diseases (Disease of Liver, not including Cirrhosis, 1; other digestive diseases 4) ...	5	2·0	
Acute and chronic Nephritis ...	3	1·2	4·1
Total ...	191	77·7	73·0

Particulars of deaths in age periods are given in Table II., Appendix. Particulars of totals at the different age periods are as follows :—

Total	0-5	5-15	15-25	25-35	35-45	45-55	55-65	65-75	75 and over
Deaths.	21	3	12	9	7	20	30	61	83
Percentage of total Deaths.	8·5	1·2	4·9	3·7	2·9	8·1	12·2	24·8	33·7

The 3 deaths (of males) at the age period 5-15 years occurred in the Urban Districts, and were caused by Malignant Disease, Violence, and Other Disease respectively.

INFANTILE MORTALITY.

The number of deaths under 1 year in the County during 1933 was 17 compared with 15 in 1932 ; the infantile mortality rate (number of deaths under 1 year per 1,000 births) was 54 compared with 43 in 1932. Of the deaths 4 (3 male, 1 female) occurred in the Urban, and 13 (5 males, 8 females) in the Rural Districts.

No deaths of illegitimate children occurred in the County during the year.

Particulars in connection with the various districts for 1933, and for the 5 yearly period 1926-30 are as follows :

Areas.	No. of Deaths under 1 year.	Rates per 1,000 births.	
		1933.	1926-30.
URBAN DISTRICTS:			
Knighton ...	2	91	19
Llandrindod Wells ...	—	—	56
Presteigne ..	2	95	63
RURAL DISTRICTS:			
Colwyn ...	3	94	24
Knighton ...	2	32	81
New Radnor ...	2	49	39
Painscastle ...	2	65	69
Rhayader ...	4	49	61
Urban Districts ...	4	59	42
Rural Districts ...	13	53	50
Administrative County	17	54	56
England and Wales ...	—	64	68

Enquiries were made by the Nurses in regard to 10 deaths under 1 year, the particulars are as follows:—

No.	Sex.	Age at Death.	Cause of Death.	— Feeding. — Breast. Artificial.		Weight at Birth.
1	M.	A few minutes.	Prematurity.	—	—	2 lbs.
2	M.	Twenty minutes.	do. (twin)	—	—	—
3	F.	6½ weeks	Whooping Cough.	Breast.	Cow's milk.	3¼ lbs.
4	M.	5½ months	Pneumonia	—	Cow's milk.	8 lbs.
5	M.	10 months	Bronchitis	Breast.	—	7 lbs.
6	M.	4½ weeks	Spina bifida	Breast.	—	—
7	M.	4¾ weeks	Bronchitis	Breast.	—	5 lbs.
8	F.	8¼ months	Convulsions	Breast.	—	7 lbs.
9	F.	14 weeks	Whooping Cough.	Breast.	—	6¼ lbs.
10	M.	2 days	Inanition	—	—	8 lbs.

None of the deaths were of illegitimate children. In connection with one house (No. 3 case) there was poor light and ventilation, and also dampness.

Four deaths occurred during the first quarter of the year, 2 in the second quarter, and 4 in the last quarter.

Particulars of deaths (under 1 year) according to age periods, for the 10 years 1921-30, and also the rates per 1,000 live births, are given in the Table which follows:—

1921-30.

Area.	Number of Deaths.							Total.	
	4 wks.								
	Under 1 day	Days. 1-7	Wks. 1-4	to 3 mths.	3-6 mths.	6-9 mths.	9-12 mths.	Under— 1 mth.	1 yr.
Urban Districts (Radnorshire)	8	12	7	7	3	1	1	27	39
Rural do.	27	44	31	42	16	6	13	102	179
County of Radnorshire	35	56	38	49	19	7	14	129	218
Urban Districts	Rates per 1,000 live births.								
(Radnorshire)	9·3	13·9	8·1	8·1	3·5	1·2	1·2	31	45
Rural do.	8·9	14·5	10·2	13·9	5·3	2·0	4·3	34	59
County of Radnorshire	9·0	14·4	9·8	12·6	4·9	1·8	3·6	33	56
England and Wales (all areas)	10·4	11·4	10·8	11·8	10·4	8·7	7·9	33	71
England and Wales (Rural areas)	11·7	12·8	11·0	11·2	8·6	7·2	6·4	36	69
Wales (Rural areas)	11·4	13·1	12·1	13·6	10·1	7·1	6·7	37	74

The rates for illegitimate deaths under 1 year (1921-30) are as follows:—

	Rate under 4 weeks.	Rate under 1 year.
Urban Districts (Radnorshire)	16	48
Rural do.	64	108
County of Radnorshire	54	96
England and Wales (all areas)	59	129
England and Wales (Rural areas)	57	105
Wales (Rural areas)	58	111

It will be seen that the infantile mortality rate under 1 year (1921-30) for the County (56), was lower than that for England and Wales, and the Rural areas of Wales; the rate being lower in the Urban districts of Radnorshire, in comparison with the Rural districts.

NEO-NATAL RATE.—This is the rate per 1,000 live births, of deaths which occurred under 4 weeks. For the 10 years 1921-30, the number of deaths under 4 weeks, which occurred in the County was 129 out of 218, 59 per cent (urban 69, rural 57); the majority (71 per cent) occurred within the first week.

The rate (under 1 month), 33 for the County, is the same as that for England and Wales, and is less than for the Rural areas for Wales; the Urban districts of Radnorshire being again lower compared with the Rural districts.

The illegitimate death rate under 1 year is also less compared with England and Wales, and Wales (Rural areas); being again lower in the Urban districts.

The neo-natal rates for 1931 and 1932 were for the County 34 and 31 respectively, compared with England and Wales 32 and 32, and Wales 37 and 36 for the same periods.

The rate per 1,000 births, of deaths which occurred under 1 day is rather lower in Radnorshire in comparison with England and Wales, and this also applies to the rate at 1-4 weeks; the rate for 1-7 days being slightly higher in Radnorshire.

Over a month, the rate up to 3 months, for the County is similar to that for England and Wales, but at periods 3-6 months, 6-9 months, and 9-12 months, is much less, being approximately one half (one quarter at 6-9 months), that for England and Wales.

CAUSE OF DEATHS UNDER 1 YEAR.—During the 10 years 1922-1931, 152 (77%) of the 222 deaths were investigated by the Health Visitors. Particulars are given in the Table and a comparison is made with the total deaths under 1 year given by the Registrar-General.

Disease.	1922-31.								Causes (under 1 year) given by the Registrar-General.
	Under 1 Day	1-7 Days	1-4 Weeks	4 Weeks to 3 Months	3-6 Months	6-9 Months	9-12 Months	Total (under 1 year).	
Congenital Debility and Malformation ...	3	6	4		1			14	132
Premature Birth ...	9	23	15	4	1			52	
Measles ...									1
Whooping Cough ...					3		3	6	7
Diphtheria ...			1					1	1
Influenza ...									1
Tuberculosis : Respiratory System									1
Other ...									
Bronchitis ...				1		1		2	7
Pneumonia ...				1	3	4	2	10	19
Other Respiratory Disease (Laryngitis)				1				1	1
Diarrhœa and Enteritis ...			2	6	2			10	16
Other Digestive Diseases ...			2	1	1			4	2
Violence ...		1		2				†3	6
Other Diseases :									28
Marasmus ...									
Inanition ...	6		1	5	1		1	14	
Convulsions ...		1	5	7	1	1	5	20	
Rickets ...							1	1	
Meningitis ...					3		1	4	
Injury at Birth ...	5	2						7	
Hæmorrhage from cord ...	1							1	
Prolapse of cord ...	1							1	
Intussusception ...						1		1	
	25	33	30	28	16	7	13	152	222
	*35	57	39	52	16	8	15	222	

†Suffocation.

*Deaths under age periods given by Registrar-General.

Of the 152 causes of death ascertained by the Health Visitors, 66 (43%) were due to Congenital Debility, Premature Birth, Malformations, etc.; the causes given by the Registrar-General under the same heading amounted to 132, out of 222 (59%).

Forty-three of the 70 deaths, not investigated by the Health Visitors, occurred under the age of 4 weeks, and the larger number would be due to the same cause; it is also possible that deaths attributed by the Health Visitors to Marasmus, Inanition, and Convulsions were given under the same heading (Congenital Debility, etc.)

Fourteen deaths (21% of the group) under the heading Congenital Debility and Malformation were as follows:—Congenital debility 2; spina bifida 8; disease of heart 1; malformation of intestine 3, of liver 1; atelectasis 1.

The other chief causes of death were Respiratory Disease (12·2%); Diarrhœa, etc. (7·2%); Convulsions; Marasmus; Infectious Diseases (5 per cent); and 41 per cent of the deaths occurred after the age of 1 month. The rates per 1,000 live births were: Congenital debility, premature birth, malformations 35; respiratory disease 7·2; diarrhœa, etc. 4·2; infectious disease (other than Tuberculosis) 2·7.

DEATHS OF INFANTS, AGED 1-5 YEARS.

Four occurred in the Rural Districts. A male aged 1-2 years died from Non-pulmonary Tuberculosis, and 2 females at the same age from Pneumonia, and Congenital Debility, etc., respectively. A female died at the age period 2-5 years from Other disease.

DIARRHŒA & ENTERITIS (under age of 2 years).

One death of a female, under 1 year, occurred in a rural district, the rate was 3·2 per 1,000 births, compared with 7·1 for England and Wales.

MATERNITY & CHILD WELFARE.

ANTE-NATAL SERVICE.—A scheme for the ante-natal examination of necessitous uninsured expectant mothers was agreed to by the County Council on August 7th, 1931. Under the scheme, doctors practising in the County examine mothers referred to them by midwives in attendance, it being understood that no patient would be referred, who could afford to pay the ordinary medical fee.

During 1933, 59 expectant mothers were examined under the scheme (first examinations 59, second examinations 4), 10 resided in the Urban, and 49 in the Rural districts, compared with 44 in 1932 (first examinations 44, second examinations 5); this is an improvement, but the number examined is unsatisfactory. Seventy-eight were examined by their own doctors independently; the large proportion resided in the rural districts.

Of 264 cases (188 midwifery, 76 maternity) attended by midwives in the county during the year ended December 31st, 1933, 15 were not booked; 5 gave one week's notice or less; 22, 1 to 3 weeks; 103, 1 to 3 months; 119, 3 months or over.

There are still a number of mothers who do not realise the importance of early booking, with a view to ante-natal examination and supervision, and the detection of any abnormality or defect.

HOSPITAL.—During the year, 7 cases (1 from an urban, 6 from rural districts) were treated at the Llandrindod Wells Hospital under arrangements made by your Authority.

Cases were first admitted to the Hospital in 1925, 65 were admitted up to the end of 1932.

Particulars in regard to the 7 cases sent during 1933 are as follows :—

- (1) Aged 30 years, primipara; contracted pelvis, labour induced, instruments and live birth.
- (2) Aged 23 years, multipara; contracted pelvis, labour induced and live birth.
- (3) Aged 23 years, primipara; contracted pelvis, labour induced and live birth.
- (4) Aged 44 years, multipara; placenta prævia, and foot presentation, live birth.
- (5) Aged 28 years; contracted pelvis, labour induced and live birth.
- (6) Aged 28 years, multipara; contracted pelvis, labour induced, instruments and live birth.
- (7) Aged 37 years, multipara; incomplete abortion, operation.

All the patients went on satisfactorily, and there were no deaths.

The occupations of the husbands were as follows:—farmers 3, butcher 1, farm labourers 2, and postman 1.

(8) A woman, aged 31 years, wife of a roadman, who resided in a rural district, was removed to the Llanidloes County Hospital, under arrangements with your Authority; there was a history of post-partum hæmorrhage in previous confinements, in addition the house was unsatisfactory. She progressed satisfactorily.

MATERNAL MORTALITY.—There was one death during the year of a woman aged 21 years, wife of a farm labourer, who resided in a rural district; the cause of death was toxæmia and puerperal fever.

The woman was attended by a handy woman, under the supervision of a doctor. The presentation was normal at full term, and the delivery stated to be easy. The housing was unsatisfactory, and the standard of living poor. She was examined by the doctor one month before the confinement.

There was a rise of temperature on the day after delivery, and she was removed to the Maternity Ward at the Knighton Poor Law Infirmary 4 days later, by this time she had become much worse and died on the day of admission.

Information in regard to maternal mortality since 1911 is given on pages 17 and 18 of my Annual Report for 1930.

During the five years 1929-33 inclusive, 8 deaths occurred, particulars are as follows:—

	Urban Districts.	Rural Districts.	County.
Puerperal Sepsis	1	3	4
Other Causes	2	2	4
	<hr/> 3	<hr/> 5	<hr/> 8

The rates per 1,000 live births were as follows:—

	Puerperal Sepsis.	Other Causes.	Total.
Urban Districts	2·71	5·42	8·13
Rural „	2·30	1·53	3·80
County ...	2·40	2·40	4·80
*England and Wales	1·79	2·52	4·23

*1933.

There has been a reduction in maternal mortality in the county during the last 5 years.

THE MIDWIVES' ACT.

Summary of Inspector's Work :

Regular inspections of Midwives ...	...	105
Special visits of enquiry	...	4
Other visits	...	21
Letters and Notices sent out	...	432
Visits of inspection to Nursing Home	...	3

Notifications received of :

Intention to practice	...	27
Sending for medical aid	...	65
Artificial feeding of infants	...	11
Still births	...	2
Having laid out a dead body	...	2
Liability to be a source of infection	...	6

In connection with the sending for medical aid, 21 notifications (30·9 per cent of total Urban births) were received from the 3 Urban districts, and 44 (17·8 per cent of total Rural births) from the 5 Rural Districts.

The majority of the notifications were received in regard to abnormalities and other conditions before labour commenced. The particulars are as follows :—

MOTHER.—(a) Ante-natal :

Small pelvic measurements	...	1
Contracted pelvis	...	1
Albuminuria	...	2
General debility	...	1

(b) Labour and Puerperium :

Delayed second stage of labour	...	4
Prolonged labour	...	12
Premature labour	...	3
Malpresentations		
(occipito-posterior 4)	...	5
Short Cord	...	1
Uterine inertia	...	4
Ruptured Perineum	...	8
Retained Placenta	...	2
Post-partum hæmorrhage	...	3
Abortion	...	3
Threatened abortion	...	1
Rise of temperature	...	2
Phlebitis (slight)	...	2
Mastitis	...	1
General weakness after delivery	...	3
Pulmonary Tuberculosis	...	1

INFANT—

Dangerous feebleness	...	1
Discharge from one eye	...	2
„ „ both eyes	...	1
Asphyxia	...	1

In 60 cases (92 per cent) the aid was on behalf of the mother (ante-natal 8 per cent), and in 5 cases (8 per cent) in connection with the infant.

MIDWIVES PRACTISING—

Number of trained midwives working under
16 District Nursing Associations (affiliated to Radnor County Nursing Association) 18

Temporary whole-time Health Visitor ... 1†

Trained midwives in private practice ... 3

Bona-fide midwives practising in Radnorshire Nil.

†Also one employed in the Gladestry District when required.

Of the midwives who notified their intention to practice in 1933, 4 were temporary only, 2 left the county, and 1 retired from practice ; there were 20 on the register at the end of the year.

The total number of cases attended by midwives during the year was 264 (188 as midwives, and 76 as maternity nurses).

NOTIFICATION OF BIRTHS.

During 1933, the number of births notified was 307 (live 301, still 6), of these 245 were notified by midwives, 7 by the matron of the Llandrindod Wells Hospital, 41 by doctors, 7 by parents, other 7 (Poor Law Institutions and Nursing Home). From the returns supplied by the District Registrars, it was ascertained that 1 had not been notified ; altogether 99 per cent wer notified. In 1925 the number notified was 93 per cent.

Enquiries were made respecting 6 still-births, in the rural districts, which occurred during the year :—

No.	Presentation.	Complications.	No. of previous confin- ments.	No. of previous miscar- riages.	No. of previous still births.	No. of children living.	No. of children dead.
1	Vertex	... Macerated foetus	1	1	—	—	—
2	Vertex	... —	1	—	1	—	—
3	Vertex	... Difficult labour, spina bifida	—	—	—	—	—
4	Breech	... Difficult labour	—	—	—	—	—
5	Vertex	... Pressure on cord	1	—	1	—	—
6	Vertex	... Placenta prævia	4	—	3	1	—

No. 4 was an illegitimate birth. In each case the urine was tested for albumen; a trace was found in connection with No. 4. In connection with No. 2, birth occurred before the arrival of the midwife; Nos. 1 and 2 were midwifery cases. No ante-natal examination was made under the Scheme; in 4 cases doctors were booked.

HEALTH VISITING.—The whole of the County is now covered by District Nursing Associations (the Rhayader Association was formed in February, 1934) with the exception of the St. Harmon's Area. The midwifery cases in the parish of Gladestry are attended by a temporary nurse-midwife, who also carries out part of the work of Health Visitor and School Nurse.

The following is a summary of the work of the Health Visitors during 1933 :—

MATERNITY & CHILD WELFARE—

Expectant mothers (first visits 311)	...	1415
Infants under 1 year (first visits 261)	...	2840
Infants 1-5 years, total visits	...	5795
Attendances at Infant Welfare Centres		64

TUBERCULOSIS—

Home visits (first visits 14)	...	321
Attendance at Stations	...	44

OTHER INFECTIOUS DISEASES—

Measles (first visits 313)	...	487
Whooping Cough (first visits 104)	...	176
Chicken Pox („ 58)	...	150
Mumps („ 80)	...	91
Influenza („ 9)	...	40

The large majority of visits re Infectious Diseases were in connection with children of school age. On page 21, Annual Report for 1930, I gave information in regard to visits for the 5 yearly periods 1921-25 and 1926-30.

FEEDING, ETC.—In connection with 270 infants, the information obtained by the Nurses in regard to the feeding is given below.

	No.	Percentage.
Breast-fed	161	59·7
Breast and artificially fed	20	7·4
Breast-fed for a time, then artificially fed	69	25·5
Artificially fed from birth	20	7·4

Where breast feeding was continued for a time, the period was as follows :—

Months	1	1-2	2-3	3-4	5-6	6-9
Number	19	14	7	12	7	10

Of 66 infants in 1933, who reached the age of 9 months within the year, 43 (65·2 per cent) were entirely breast-fed ; 8 (12·1 per cent) were breast-fed for a time ; 8 (12·1 per cent) were breast fed and artificially fed ; and 7 (10·6 per cent) were artificially fed from birth.

In the majority of cases the feeding was under three months. The reasons given for artificial feeding in 90 cases were as follows :—Failure of lactation 45, ill health of mother 20, child's health 19, mother out at work 5, and 1 child adopted.

Of 109 babies artificially fed, the feeding was as follows :—Cows' milk 81, condensed milk 15, and patent foods 13.

The kind of feeding bottle in use is very important, information was obtained in 104 cases, in each case a boat shaped bottle with an india-rubber teat was used. Thirteen children were provided with dummies ; these are a frequent source of flatulence and other troubles.

It was ascertained that 97 out of 270 infants slept in a cot, the remainder slept with the mother ; the danger of over-lying is well known. In connection with 2, the clothing was unsatisfactory. In 14 houses there was inadequate ventilation, and in 10 houses the light was insufficient.

Twenty houses were damp, and 4 were dirty ; in three the water supply was inadequate.

I am indebted to Miss J. Todd, Superintendent Nurse and Inspector of Midwives for summarising the information in regard to the work of the Health Visitors, etc.

On pages 21-23, Annual Report for 1930, I summarised the information for the 5 years 1921-25 and 1926-30.

INFANT WELFARE CENTRES—

	Howey.	Knighton.	Llandrindod Wells.	Presteigne.	Total.
*No. of Sessions	12	10	23	10	55
Total number of individual children who attended at the centres during the year, and who on their first attendance were—					
(1) Under 1 year ...	2	23	19	14	58
(2) 1-5 years ...	—	1	2	4	7

	Howey.	Knighton.	Llandrindod Wells.	Presteigne.	Total.
Total number of children who attended at the centres during the year, and who at the end of the year were—					
(1) Under 1 year ...	4	15	22	10	51
(2) 1-5 years ...	5	14	15	8	42
Total attendances—					
(1) Under 1 year ...	33	95	191	53	372
(2) 1-5 years ...	36	98	209	63	406
Average attendance per session ...	6	16	17	10	14

*Doctor in attendance at Knighton and Presteigne at each session, 8 out of 12 at Howey, and 12 out of 23 sessions at Llandrindod Wells.

On account of an epidemic of measles, only 2 sessions were held at Presteigne during the third quarter, and 2 at Knighton during the second quarter.

The percentage of children, under 1 year of age, who attended for the first time, per notified live births was 19·2.

On pages 24 and 25, of my Annual Report for 1933, I gave information in regard to attendance at the centres since 1921 ; a comparison was made based on the average number of births registered at Knighton, Llandrindod Wells and Presteigne Centres. As only a minority of infants, on account of distance, attend the centres, it is left to a large extent to the Health Visitors to give instruction to the mothers on matters of health, including fresh air, sunshine, feeding, etc.

INFANT PROTECTION.

Under the administration of Part I. of the Children Act, 1908, as amended by Part V. of the Children and Young Persons Act, 1932, there were 4 persons on the Register (residing in Rural Districts) at the end of the year, who were receiving children for reward ; the 3 boys were aged 3, 6 and 8 years, and the girl 3 years, on December 31st.

There were 19 Infant Protection Visitors at the end of the year, consisting of the 18 District Nurses who are part-time Health Visitors, and the temporary whole-time Health Visitor ; regular visits are made.

CLINICS.—Since 1930, the Eye Clinics have been available for infants under school age, and also the provision for operative treatment of enlarged tonsils and adenoids at the Llandrindod Wells Hospital.

Two boys attended the Eye Clinics, at the ages of 2 and 4 years respectively, and 2 girls at the age of 2 years, on account of squint and defective vision; a boy aged 2 years had previously attended.

No children were treated at the Llandrindod Wells Hospital.

ORTHOPÆDIC SCHEME.

On pages 25 and 26 of my Annual Report for 1927, I referred to the County Scheme.

On pages 21 and 22 of the 1929 Report, I referred to the treatment of crippled children attending the elementary schools in the County, and on pages 33 and 34, reference was made to children attending the Secondary Schools.

CHILDREN UNDER SCHOOL AGE.—There were 8 new cases (boys) total attendances 28 (Llandrindod Wells Centre 22, Newtown 5, and Craven Arms 1), and 8 old cases (5 boys and 3 girls) total attendances 37 (Llandrindod Wells Centre 24, Hereford 11, and Newtown 2).

Of the new cases, 3 boys aged 2 years (2) and 3 years had rickets; 2 boys (aged 2 years and 3 years respectively) had flat feet. A boy, aged 4 years, had knock knee, and 2 boys (aged 1 year and 2 years) suffered from congenital elevation of scapula, and congenital calcaneo-valgus respectively.

In connection with the old cases, the defects were rickets (3), congenital metatarsus varus, spastic paraplegia, congenital club foot, talipes equino varus, and bowing of legs.

ADULTS.—There were 12 new cases (4 males, 8 females) total attendances 31, (Llandrindod Wells Centre 21, Newtown 1, Hereford 2, Craven Arms 7), and 10 old cases (6 males, 4 females) total attendances 48 (Llandrindod Wells Centre 35, Leominster 7, Hereford 3, Newtown 3).

Of the new cases the defects were female (46 years) twisted right toe; female (46) double hallux valgus; female (39) left sided hemiplegia; female (15) bad posture; female (15) claw-foot; male (21) and female (46) multiple arthritis; and males (15), (15) and (18) years, and 2 females (15) flat feet.

INFECTIOUS DISEASE.

Particulars of notifications and of admission to Hospital during 1933, are given in the accompanying tables.

Disease.	Total Cases notified.	Cases admitted to Hospital.	Total Deaths.
Scarlet Fever ...	7	*1	
Diphtheria ...	1		
Enteric Fever (including Paratyphoid) ...	1		
Puerperal Fever ...	1	†1	1
Puerperal Pyrexia ...	2	†1	
Erysipelas ...	5		
Pneumonia ...	13		
Ophthalmia Neonatorum ...	2		

†Maternity Ward, Knighton Poor Law Institution.

*Knighton Isolation Hospital.

NUMBER OF INFECTIOUS DISEASES NOTIFIED IN EACH DISTRICT.

Cases notified in each locality, year ended 30th December, 1933.

	Scarlet Fever.	Diphtheria.	Enteric Fever (including Paratyphoid)	Puerperal Fever.	Puerperal Pyrexia.	Erysipelas.	Pneumonia.	Ophthalmia Neonatorum.
Urban— Knighton ... Llandrindod Wells Presteigne ...	3					3	10	
Total Urban ...	3					3	10	
Rural— Colwyn ... Knighton ... New Radnor ... Painscastle ... Rhayader ...	1 1 2			1	2	1 1	1 2	1 1
Total Rural	4	1	1	1	2	2	3	2
Total County	7	1	1	1	2	5	13	2

Returns taken from weekly notification cards.

SCARLET FEVER.—The disease was not in epidemic form in any of the districts during the year ; 3 cases occurred in an urban, and 4 in 3 rural districts ; there were no deaths.

ENTERIC FEVER.—One case occurred in the Rhayader Rural District.

MEASLES.—The disease was present in epidemic form in the parish of Franksbridge, and in the urban district of Knighton during the second quarter ; in the same areas during the third quarter, and also in the parishes of Evenjobb, Glasbury, Llandegley, Llanyre, Norton and Stanage, and in the urban district of Presteigne ; in the parishes of Llanfihangel Rhydython and Stanage during the last quarter. There were no deaths.

During the 5 years 1929-33, 2 deaths occurred in the rural districts, of infants aged 0-1, and 1-2 years. The mortality per 100,000 living under 5 years of age was 24, compared with England and Wales (all areas) 121, Wales (do.) 71, and Wales (rural areas) 38, for the year 1930.

WHOOPIING COUGH.—The disease was present in epidemic form in the parish of Whitton, and in the urban district of Presteigne during the first quarter ; in the parishes of Cwm-daiddwr, Rhayader and St. Harmon's during the third and fourth quarters ; in the parish of Llanellwedd during the third quarter ; in the parishes of Abbeycwmhir (western part) and Nantmel during the last quarter. Two children (male and female) under the age of 1 year died in Presteigne, and 2 females at the same age in Knighton and Rhayader rural districts respectively.

During the 5 years 1929-33, 6 deaths occurred (all under 1 year), 2 in the urban and 4 in the rural districts. The mortality per 100,000 living under 5 years was 73, compared with England and Wales (all areas) 64, Wales (do.) 92, and Wales (rural areas) 91, for the year 1930.

MUMPS.—This was present in epidemic form in Llandrindod Wells during the first and second quarters.

CHICKEN POX.—This was in epidemic form in the parishes of Llandrindod Rural, and Dissertl and Trecoed during the second and third quarters, and in the parishes of Evenjobb, Llanbister, and Llanbadarn Fynydd during the last quarter.

INFLUENZA.—The disease was present in epidemic form in the county during the last quarter.

Particulars of deaths in the rural districts of the county, during the 10 years 1921-30 are as follows:—

Males.			Females.		Persons.	
No. of	Rate per	1,000	No. of	Rate per	No. of	Rate per
Cases.	1,000		Cases.	1,000	Cases.	1,000
	popula-			popula-		
	tion.			tion.		
0-5	1	·014	1	·015	2	·014
5-15	1	·007	1	·007	2	·007
15-25	1	·007	—	—	1	·004
25-45	4	·020	3	·015	7	·017
45-65	10	·059	12	·078	22	·068
65-75	19	3·792	9	1·887	28	2·863
75 and up	15	6·667	6	2·597	21	4·605
Total ...	51	·063	32	·042	83	·053

The mortality increases with age, and is highest at the age periods 65 years upwards.

SMALLPOX.—On page 20 of my Annual Report for 1921, and in succeeding Reports, I have referred to this disease.

The percentage of children (medically inspected in 1933 at the elementary schools) unvaccinated was 42·8 per cent.

Particulars in regard to vaccination of infants under 1 year, for the year ended 31st December, 1932, are as follows:—

Parishes comprised in—		No. of Births.	Success-fully vaccin-ated.	Per-centage vaccin-ated.
(1) Knighton Urban and Rural Districts, and Presteigne Urban District ...				
	(a)	69	20	29·0
	(b)	39	16	41·0
(2) Llandrindod Wells Urban & Rhayader Rural District				
	(a)	74	38	51·2
	(b)	34	22	64·7
(3) Painscastle Rural District				
	(a)	23	10	43·5
	(b)	17	9	52·9
(4) Colwyn Rural District ...		51	22	43·1
(5) New Radnor Rural District ...		42	27	64·3
Total	...	349	164	47·0

The particular parishes are given on pages 30 and 31, Annual Report for 1930.

The percentage of infants successfully vaccinated was 47 compared with 51·9 in 1930.

PUERPERAL FEVER AND PYREXIA.—There was 1 case notified (the patient resided in a rural district), aged 22 years and married; she was treated in the later stages of the disease in the Knighton Poor Law Institution, and died shortly after admission, particulars have been given under maternal mortality.

There were 2 cases of Puerperal Pyrexia notified, married women, aged 29 and 38 years respectively, who resided in Rural Districts; the cause of the Pyrexia was Puerperal Sepsis in the first case, and Sapræmia and Mastitis in the second.

OPHTHALMIA NEONATORUM.—Two notifications were received from Rural Districts in regard to 2 female legitimate infants, aged 4 and 14 days respectively. The particulars are as follows :—

Treated						
At Home.	In Hospital.	Vision		Total Blindness.	Death.	
1	1	2	—	—	—	

The infant aged 14 days was admitted to the Llandrindod Hospital.

OTHER DISEASES.—There were no notifications of Acute Poliomyelitis or Encephalitis Lethargica during the year.

ISOLATION HOSPITALS.

Full particulars were given on pages 27-29, Annual Report for 1932, of the three Isolation Hospitals in the County, and also a suggested scheme for the erection of a central hospital. I suggested that in the interval before the erection of the hospital, that the existing hospitals should be available for the admission of cases from any district in the county. Arrangements have been made by the Painscastle Rural District for the admission of cases of scarlet fever, diphtheria and smallpox (belonging to the district) to the Hay Isolation Hospital.

The Rhayader Isolation Hospital, which was built at the time of the construction of the Elan Valley Waterworks, has not been used since, although there have been occasions when isolation of cases of infectious disease was necessary to prevent spread of infection.

Co-operation between the various Local Sanitary Authorities has been suggested, to enable cases from all districts (apart from Painscastle) to be treated in Hospital, but up to the present no arrangements have been made. In the 3 Hospitals in the County only one disease can be treated at a time.

TUBERCULOSIS.

During 1933 reports of 24 cases of Tuberculosis, notified on Form A (18 Pulmonary, 6 Non-Pulmonary) were received through the District Medical Officers of Health.

NON-NOTIFICATION.—Information from the death returns of the Registrar-General showed that 3 cases of Tuberculosis in the County had not been notified; particulars are as follows:—

	Pulmonary.	Non-Pulmonary.	Total.
Notified	18	6	24
Died and not notified	2	1	3
	—	—	—
Total	20	7	27

Of the 27 cases that should have been notified, 3 (11 per cent) were not notified, viz: Pulmonary 2 (10 per cent), and Non-Pulmonary 1 (14 per cent).

Particulars are as follows:—A male (aged 16 years) who resided in the New Radnor Rural District, died of Tubercular Peritonitis at the Builth Wells Hospital. Two females (aged 23 years and 37 years) who resided in the New Radnor Rural District, and Llandrindod Wells Urban District respectively, died of Pulmonary Tuberculosis.

DEATHS.—During the year there were 15 deaths from Pulmonary Tuberculosis (5 males, 10 females) and 6 deaths (4 males, 2 females) from Non-Pulmonary Tuberculosis; particulars in regard to districts and age periods are given in Tables I. and II. Appendix.

NON-PULMONARY TUBERCULOSIS.—Information was received on Form A in regard to 6 cases. There were 4 males whose ages were 1½, 14, 28 and 58 years and 2 females aged 31 and 41 years.

A male, 1½ years, suffered from meningitis, and a male, 14 years had tubercular glands. In regard to 2 males, aged 28 and 58 years, the hip and epididymis respectively were affected, and in two females, aged 31 and 41 years, the lumbar vertebrae and spine were affected.

Particulars of new cases of Tuberculosis and of all deaths in the area during 1933, are given below:—

Age Periods.	New Cases.				Deaths.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
0	-	-	-	-	-	-	-	-
1	-	-	1	-	-	-	1	-
5	-	-	-	-	-	-	-	-
10	1	-	1	-	-	-	-	-
15	4	4	-	-	2	4	1	1
25	2	1	1	1	1	2	1	-
35	2	-	-	1	-	2	-	1
45	-	1	-	-	-	1	-	-
55	-	-	1	-	1	-	1	-
65 & over	2	1	-	-	1	1	-	-
	11	7	4	2	5	10	4	2

The rates of non-notified deaths (3) to total tuberculosis deaths (21) is 1 to 7.

In each case of Pulmonary Tuberculosis, and in cases of Non-Pulmonary Disease in which the diagnosis could have been made within a reasonable period of death, a communication is sent to the medical practitioner concerned. In some cases there is omission on the part of some of the District Medical Officers of Health in the County to send copies of notifications on Form A. as required by the Tuberculosis Regulations.

Particulars of deaths and rates per 1,000 of the population (County) for the 5 years 1929-33 are as follows:—

Pulmonary.		Non-Pulmonary.		Total.	
No. of		No. of		No. of	
Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
69	·652	29	·274	98	·927

The census population in 1931, was taken on June 19th, and as there were a number of visitors in Llandrindod Wells at the time, the numbers at each age period in the urban districts cannot be used for determining death rates. Below I include a table, the rate being calculated on the population at each age period in the rural districts shown by the census figures of 1921 and 1931. The rates are for the rural districts for the 10 years 1921-30, and particulars are given for comparison of the rates for England and Wales, (all areas, and rural districts) for 1930.

PULMONARY TUBERCULOSIS.

RADNORSHIRE RURAL DISTRICTS, 1921-30, | ENGLAND & WALES, 1930.

Age period.	—Males.—		—Females.—		—Persons.—		All Areas.			Rural Districts.		
	No.	Rate.	No.	Rate.	No.	Rate.	M.	F.	P.	M.	F.	P.
0-5	1	·14	—	—	1	·07	·12	·10	·11	·06	·06	·06
5-15	1	·07	2	·14	3	·10	·07	·13	·10	·04	·12	·08
15-25	15	1·04	17	1·40	32	1·21	·83	1·11	·97	·58	·96	·76
25-35 } 35-45 }	36	1·79	25	1·22	61	1·50	1·14 1·31	1·05 ·73	1·09 ·99	·88 ·98	1·01 ·72	·95 ·84
45-55 } 55-65 }	12	·71	3	·20	15	·47	1·58 1·25	·56 ·45	1·03 ·83	·88 ·59	·48 ·40	·67 ·49
65-75	4	·80	3	·63	7	·72	·83	·33	·56	·38	·29	·33
75 & up	1	·44	—	—	1	·22	·31	·20	·24	·19	·18	·19
	70	·86	50	·66	120	·76	·87	·62	·74	·55	·54	·55

The rate at all ages for males is higher than that for females, thus differing from the corresponding rates for England and Wales (Rural Areas).

The death rates increase rapidly after the age of 15 years, and are highest at the age periods 15-25, and 25-45, the rate at the former period is lower for males, and higher for females in comparison with the latter; the rates for both sexes at these age periods, and also for females at 65-75 years are higher than those for England and Wales, (all areas and rural districts), and this especially applies in comparison with the rural districts.

The rates at all ages and at the age periods 15-25 and 25-45, correspond more closely to those for England and Wales (all areas), where the effect of urbanisation is in evidence; although there are no industries in Radnorshire in the rural areas, which can account for these higher rates.

PREVENTION AND TREATMENT.—Full particulars were given on pages 21-25, Annual Report for 1924, and on pages 34-39, Annual Report for 1925. No action was taken under the Public Health Regulations, 1925, or under Section 62, Public Health Act, 1925.

TABLE I.
Return showing the work of the Dispensary (or Dispensaries)
during the year 1933.

Diagnosis.	Pulmonary				Non-Pulm'y				Total.			
	Ad'lts		Chil- dren		Ad'lts		Chil- dren		Ad'lts		Chil- dren	
	M	F	M	F	M	F	M	F	M	F	M	F
A. NEW CASES examined during the year excluding contacts)												
(a) Definitely Tuberculous ...	5	7	1	...	4	1	1	...	9	8	2	...
(b) Diagnosis not completed ...	...	...	...	...	...	...	...	...	13	10	6	2
(c) Non-Tuberculous ...	...	...	...	...	...	...	...	...	11	10	6	3
B. CONTACTS examined during the year—												
(a) Definitely Tuberculous	2	...	...	...	...	...	...	...	2	...	...	...
(b) Diagnosis not completed ...	...	...	...	...	...	...	...	...	...	...	2	...
(c) Non-Tuberculous ...	...	...	...	...	...	...	...	...	2	5	1	4
C. CASES written off the Dispensary Register as—												
(a) Recovered ...	1	5	...	...	...	...	1	...	1	5	1	...
(b) Non-Tuberculous (including any such cases previously diagnosed and entered on the Dispensary Register as tuberculous) ...	12	13	5	7	1	2	2	...	13	15	7	7
D. NUMBER OF PERSONS on Dispensary Register on 31st December—												
(a) Definitely Tuberculous	34	24	8	4	12	3	5	4	46	27	13	8
(b) Diagnosis not completed ...	...	...	...	...	...	...	...	...	31	26	27	18

TABLE I.—continued.

1. Number of cases on Dispensary Register on January 1st.	167	8. Number of visits by Tuberculosis Officers to homes (including personal consultations)	320
2. Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years.	8	9. Number of visits by Nurses or Health Visitors to homes for Dispensary purposes.	472
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and "cases lost sight of."	10	10. Number of—	
4. Cases written off during the year as dead (all causes)	16	(a) Specimens of sputum, etc., examined	40
5. Number of attendances at the Dispensary (including contacts)	186	(b) X Ray examinations made in connection with Dispensary work.	172
6. Number of Insured Persons under Domiciliary treatment on 31st December.	9	11. Number of "Recovered" cases restored to Dispensary Register and included in A (a) and A (b) above.	—
7. Number of consultations with Medical Practitioners—		12. Number of "T.B. plus" cases on Dispensary Register on 31st Dec.	20
(a) Personal	164		
(b) Other	298		

TABLE II.

Return showing the extent of Residential Treatment and Observations in Institutions during the year ended 31st December, 1933.

		In Institutions on Jan. 1st, 1933.	Admitted during the Year.	Dis- charged during the Year	Died in Institu- tions.	In Insti- tutions on Dec. 31st 1933.
Number of doubtfully Tuberculous cases admitted for observa- tion	Adult Males	—	—	—	—	—
	Adult Females	—	—	—	—	—
	Children	—	5	2	—	3
	Total ...	—	5	2	—	3
Number of definitely Tuberculous cases admitted for treatment	Adult Males	9	8	12	—	5
	Adult Females	2	4	3	1	2
	Children	1	2	3		
	Total ...	12	14	18	1	7
Grand Total ...		12	19	20	1	10

In the preceding tables an account has been given of the work carried out by the Welsh National Memorial Association ; Dr. Jordan is the Tuberculosis Physician for Brecon and Radnor. On pages 36-39, Annual Report for 1925, a summary of the arrangements made by the above Association in regard to Sanatorium, Hospital, and Dispensary Treatment was given, and also an account of the arrangement for examination of contacts, etc.

VENEREAL DISEASES.

Full particulars in regard to prevention and treatment were given on pages 42 and 43 of my Annual Report for 1925, and on pages 40 and 41, Annual Report for 1930 ; in the latter Report information is given in regard to treatment at clinics during the periods 1921-25 and 1926-30.

During 1932, 3 cases (1 male, 2 females) of Syphilis, and 2 cases males of Gonorrhœa, and 1 case (male) of Other Disease, attended at the Hereford Venereal Diseases Clinic on 41 occasions, and 1 case (female) of Gonorrhœa attended at the Shrewsbury Clinic on 6 occasions.

CANCER, MALIGNANT DISEASE.

Particulars in regard to deaths, during the 5 years 1921-25, were given on page 44 of my Annual Report for 1925, and deaths during the five years 1926-30, on page 41, Annual Report for 1930.

Particulars in regard to deaths in the rural districts of Radnorshire at the various age periods, during 1921-30 are given in the table which follows ; the rates are per 1000 of the population.

Radnorshire (Rural Districts) 1921-30.						England and Wales (Rural Districts) 1926.			
Age period in years.	M.		F.		P.		M.	F.	P.
	No.	Rate.	No.	Rate.	No.	Rate.			
0-15	—	—	1	·05	1	·02	·02	·02	·02
15-25	—	—	—	—	—	—	·04	·02	·03
25-35	5	·25	5	·24	10	·25	{	·10	·14
35-45								·31	·49
45-55	40	2·37	41	2·67	81	2·52	{	1·31	1·62
55-65								3·65	3·71
65-75	32	6·39	29	6·08	61	6·24	8·14	7·24	7·67
75 & up	32	14·22	17	7·36	49	10·76	12·12	10·61	11·26
Total	109	1·34	93	1·22	202	1·21	1·31	1·47	1·39

Cancer and malignant disease are most common from age 45 years and upwards, increasing with age, males are affected to a slightly higher extent than females in Radnorshire ; males have a higher rate at the age period 75 years and upwards. The total rate is rather less than that for England and Wales ; the male rate corresponds, but that for females is rather less.

Every effort should be made to avoid any cause of chronic irritation, and medical advice should be sought immediately in regard to any growth.

RESPIRATORY DISEASE.

Under this heading are included Pneumonia, Bronchitis and Other Disease.

Information in regard to the 5 years, 1921-25, is given on pages 44 and 45, Annual Report for 1925, and for the 5 years 1926-30, on pages 38 and 39, Annual Report for 1930.

Particulars in regard to the 10 years, 1921-30, are given in the table which follows:—

Respiratory Disease (Rural Districts) 1921-30.

	M.		F.		P.	
	No.	Rate per 1,000 population.	No.	Rate.	No.	Rate.
0-5	28	3·84	15	2·53	43	3·06
5-15	1	·07	—	—	1	·03
15-25	6	·42	1	·08	7	·26
25-45	13	·65	7	·34	20	·49
45-65	18	1·07	10	·65	28	·87
65-75	32	6·39	14	2·94	46	·47
75 and up	44	19·56	38	16·45	82	17·98
Total	142	1·75	85	1·11	227	1·44

The largest number of deaths occur in the early and late age periods, at all ages the rates are higher for males than females.

HEART DISEASE.

The largest number of deaths occur from this cause. Particulars of rural districts in Radnorshire for the 10 years 1921-30 are given in the table.

Radnorshire (Rural Districts) 1921-30. England & Wales 1926.

	M.		F.		M.	F.
	No.	Rate per 1,000 population.	No.	Rate.	Rates.	
0-15	1	·04	2	·09	·08	·09
15-25	—	—	3	·25	·18	·22
25-35 }	4	·20	10	·48	·27	·30
35-45 }					·54	·55
45-55 }	30	1·78	34	2·21	1·44	1·26
55-65 }					4·02	3·43
65-75	60	11·98	45	9·45	11·81	10·20
75 and up	65	28·89	59	25·54	27·36	25·30
	160	1·97	153	2·0	1·61	1·69

The figures for Radnorshire compare very favourably with these for England and Wales, especially for males, up to the age of 45 years.

MENTAL DISEASE.

This was referred to on pages 45 and 46, Annual Report for 1925, on pages 28 and 29, Annual Report for 1928, and on pages 39 and 40, Report for 1930.

The joint asylum for the counties of Brecon and Radnor was opened for the admission of patients on February 22nd, 1903 ; later, arrangements were made for the admission of cases from the County of Montgomery. The Institution is now called the Mid-Wales Counties' Mental Hospital.

On the 31st December, 1903, there were in the Institution 92 Radnorshire cases (42 males, 50 females) chargeable to the Builth, Hay, Kington, Knighton and Hay Unions, and on the 31st December, 1933, there were 97 cases (36 males, 61 females).

The number of cases admitted during 1933 was 15 (8 males, 7 females).

There is a slight increase in the number of cases in the institution ; comparing the 30 years 1903-33, the number of males in 1933 is rather less, and there are 11 more females.

Cases of mental disease are a heavy charge on the community, and it is important that every effort should be made to bring about a reduction in the number of cases. Under the Mental Treatment Act, 1930, voluntary and temporary patients can be admitted without certification ; there is thus every encouragement for the treatment of patients in the early stage.

Under the Act, Local Authorities are empowered to provide out-patient clinics. Cases of early mental disease can be seen by arrangement, by Dr. Drummond, at the Institution.

There has been a progressive decline in the number of cases of Tuberculosis ; but there has been no corresponding decline in cases of Mental Disease.

OTHER DISEASES.

On pages 41-43, Annual Report for 1930, information was given in regard to Diabetes, Nephritis and Rheumatic Fever.

HOSPITALS, CLINICS, SPA TREATMENT, Etc.

Information was given on pages 43 and 44, Annual Report for 1930.

POOR LAW INSTITUTIONS.—The total number of beds provided for sick, maternity and mental cases on 31st December, 1933, was as follows :—

Cases.	Knighton.	Rhayade-.	Total.
Men	26	10	36
Women	12	10	22
*Children (under 16 years)	†4	—	4
	42	20	62

*Excluding cots in maternity wards. †In general wards.

Information in regard to (A) In-patients (year ended 31st December, 1933) is given below:—

	Knighton.	Rhayader.	Total.
1. Total No. of Admissions (including infants born in hospital).	53	22	75
2. No. of women confined in hospital	3	—	3
3. No. of live births	3	—	3
4. No. of still births	—	—	—
5. No. of deaths among the newly born (i.e. under 4 wks.)	—	—	—
6. Total number of deaths among children under 1 year	—	—	—
7. No. of maternal deaths among women confined to hospital	—	—	—
8. Total No. of deaths	9	3	12
9. Total No. of discharges (including infants born in hospital)	44	15	59
10. Duration of stay of patients included in 8 and 9 above:			
(a) Under 4 weeks	12	7	19
(b) 4 and under 13 weeks	21	3	24
(c) 13 weeks or more	20	8	28
11. No. of beds occupied :			
(a) average during the year	29	15	44
(b) highest ...	31	20	51
	(27/11/33)	(31/12/33)	
(c) lowest ...	27	11	38
	(5/6/33)	(1/1/33)	
12. No. of surgical operations under general anæsthetic (excluding dental operations)	—	—	—
13. No. of abdominal sections	—	—	—

(B). Out-patients.—There is no provision for out-patients in either institution.

Particulars of classification of the sick and number of beds occupied in the two Poor Law Institutions on 31st December, 1933, are given as follows:—

Classification of Wards.	No. of Wards.	Men. Beds.		Women.		Children.		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
1. ||Medical :									
(a) Knighton	6	7	7	4	4	1	1	12	12
(b) Rhayader									
2. ||Surgical :									
(a) Knighton									
(b) Rhayader									
3. Chronic Sick :									
(a) Knighton	3	10	10	*6	4			16	14
(b) Rhayader	2	10	10	5	5			15	15
4. Children :									
(a) Knighton									
(b) Rhayader									
5. Venereal :									
(a) Knighton									
(b) Rhayader									
6. Tuberculosis :									
(a) Knighton									
(b) Rhayader									
7. Isolation :									
(a) Knighton	1	1				3	2	4	2
(b) Rhayader									
8. Maternity :									
(a) Knighton	2			2				2	
(b) Rhayader	1			1					
9. Mental :									
(a) Lunacy Act, 1890.									
(i) Short stay									
Knighton									
Rhayader									
(ii) Long stay									
Knighton									
Rhayader	1			5	5			5	5
(b) Mental Treatment									
Act, 1930.									
Knighton and Rhayader									
(i) Voluntary									
(ii) Temporary									
10. Mental Defectives									
11. Other									
(a) †Knighton1		8	8					8	8
(b) †Rhayader1		10	10	10	10			20	20

* Two mental defectives. †Ambulatory cases, chiefly senile (permanent residents). ||Medical and Surgical Wards combined. ‡Able-bodied destitute.

In the Rhayader Institution there are 2 Imbeciles and 4 Feeble-minded ; these females are included under the Lunacy Act, 1890, Secs. 24 to 26. In the Knighton Institution there are 1 Imbecile (male) and 6 Feeble-minded (2 males, 4 females). Five are not in the sick wards.

It is the exception for cases of Tuberculosis to be treated in the Institutions, as provision is made by the Welsh National Memorial Association.

Acute surgical cases are sent to Voluntary Hospitals.

Accommodation in the Knighton Institution is inadequate, there are sick cases in the main part of the Institution. It is desirable that the medical and surgical cases should be separated from each other, and the chronic cases should be separated from the acute ; it is also essential to have separate wards for mentally defectives, and for mental cases. It has been suggested by the Board of Control that some of the cases of mental disease in the Mid-Wales Counties' Mental Hospital should be transferred to Poor Law Institutions.

A report on the classification of cases in the two Institutions on September 30th, was made to the Public Assistance Committee on December 1st ; a further report using the classification given in the Annual Report of the Chief Medical Officer of the Ministry of Health for the year 1932, will be made to the Public Assistance Committee. The grouping is as follows :—
(1) Fit for "House" ; (2) need simple attendance ; (3) chronic and incurable ; (4) improvable ; (5) needing better facilities ; (6) acute and sub-acute ; (7) maternity ; (8) Mental, etc.
(a) Needing nursing. (b) needing supervision. (c) fit for "House."

Information in regard to staff, etc., is given on page 39, Annual Report for 1931, and in regard to treatment of Acute cases on page 40, Annual Report for 1931.

BACTERIOLOGICAL WORK.

During 1933, 9 throat swabs were examined by the Clinical Research Association, London, for the presence of Diphtheria bacilli, in no cases were these detected ; 3 vaginal swabs and 2 swabs from conjunctiva were examined for Gonococci (Birmingham University Laboratory 3, Clinical Research Association, London, 2), 3 were positive and 2 negative.

Eleven specimens of blood were sent to the Birmingham University Laboratory, and 1 specimen to the Clinical Research Association, for the Wasserman re-action ; two were positive, 1 doubtful re-action, and 9 negative.

Information in regard to milk samples is given under "Milk Supply."

SALE OF FOOD AND DRUGS.

The following are particulars of the samples taken for analysis by Mr. Powell, Inspector under the Food and Drugs Acts, during the year.

PUBLIC HEALTH CONDENSED MILK REGULATIONS, 1923-27.—Four samples taken complied with the Regulations.

PUBLIC HEALTH DRIED MILK REGULATIONS, 1923 and 1927.—No samples were taken.

ARTIFICIAL CREAM ACT, 1929.—No samples were taken.

PUBLIC HEALTH PRESERVATIVES IN FOOD REGULATIONS, 1925-27.—Particulars are given in the table which follows ; all the samples of milk and other food were free from preservatives, or only contained the permissible amount.

MILK & CREAM REGULATIONS, 1912.—Six samples were taken of local, and 27 of foreign cream. The local creams contained an average of 46% of fat, but the foreign creams only averaged from 20·4% to 25·9%.

The following table shows the number of samples taken and the number found to be genuine.

Nature of Sample.	No. of samples taken.	Number found to be genuine.	Nature or Sample.	No. of samples taken.	Number found to be genuine
New Milk ...	101	100	Table Jellies ...	2	2
Separated Milk	1	1	Blanc Mange		
Condensed Milk	4	4	Powder...	1	1
Malted Milk ...	1	1	Calves Feet Jelly	1	1
Butter ...	4	4	Beef Cubes ...	1	1
Margarine ...	2	2	Meat Extract ...	1	1
Cheese ...	5	5	Mincemeat ...	1	1
Lard ...	1	1	Meat Paste ...	2	2
Bacon ...	1	1	Tinned Paste ...	1	1
Cocoa ...	3	3	Fish Paste ...	2	2
Chocolate ...	2	2	Sausage ...	1	1
Coffee ...	3	3	Gravy Powder...	1	1
Tea ...	3	3	Spice ...	2	2
Sugar ...	4	4	Cheese & Curry	1	1
Rice ...	1	1	Pickles ...	1	1
Rice Flour ...	1	1	Soup Powders ...	2	2
Bread ...	2	2	Grape Fruit		
Suet ...	2	2	Cordial ...	1	1
Sultanas ...	1	1	Custard Powder	1	1
Glaze Cherries	1	1	Bi'ca'ate of Soda	1	1
Jam ...	1	1	Baking Powder	1	1
Marmalade ...	1	1	Tartaric Acid ...	1	1
Honey ...	1	1	Health Salts ...	3	3
Syrup ...	1	1	Castor Oil ...	1	1
Lemon Cheese	1	1	Olive Oil ...	1	1
Butter Scotch	1	1			
Orangeade					
Tablets	1	1			

The total number of samples taken was 180, of these 14 were formal (milk).

One sample of milk was deficient in cream to the extent of 1%; as the deficiency was small no proceedings were taken, but the vendor was cautioned.

MILK SUPPLY.

Information in regard to number of registered cowkeepers in each district in Radnorshire is given on page 31 of my Annual Report for 1928 ; the number of vendors was 148. The number of registered cowkeepers in 1933 was 136.

BACTERIOLOGICAL EXAMINATION OF MILK.—During the year 102 samples were taken by Mr. Powell, Inspector of Food and Drugs, and sent to the Public Analyst for examination.

Particulars are as follows :—

Knighton Urban	...	...	8 samples from 7 surveyors.			
Llandrindod Wells Urban	...	7	"	"	5	"
Presteigne Urban	...	16	"	"	7	"
Colwyn Rural	...	25	"	"	15	"
Knighton Rural	...	2	"	"	2	"
New Radnor Rural	...	4	"	"	4	"
Paincastle Rural	...	9	"	"	9	"
Rhayader Rural	...	31	"	"	17	"

The number of organisms developed on agar in 48 hours at a temperature of 37°C. is given below ; the numbers refer to colonies developed in thousands, e.g., 20-50 means 20-50,000 organisms per c.c. of the milk.

2-10	10-20	20-50	50-100	100-200	200-300	300-400
20	12	16	19	29	1	2
		400-500	500-600	600-800		
		1	1	1		

In 22 milks B.Coli was present in 1/10th c.c., and in 5 milks in 1/10th and 1/100th c.c. To conform to the standard of Grade A. Milk, the number of organisms must not exceed 200,000 per c.c. and B.Coli must not be present in 1/100th c.c. Certified Milk must be from cows free from Tuberculosis, and must not contain more than 30,000 organisms in 1 c.c., and no B.Coli in 1/100th c.c. ; in neither case must the milk be heated.

Thirty-six samples conformed to the standard of Certified Milk as regards number of organisms and presence of B.Coli, and 57 samples to Grade A. Milk.

Three samples conformed to Grade A. Milk in regard to organisms only ; B.Coli was present in 1/10th and 1/100th c.c.

Particulars in regard to samples taken during the period 1924-30 were given on page 48, Annual Report for 1930, and information in regard to Clean Milk Competitions on pages 32 and 33; Annual Report for 1928.

There is room for improvement in regard to cleanliness ; I referred to this matter in detail on page 48, Annual Report for 1930.

Where the results of the examinations of milk were unsatisfactory, communications were sent to the District Medical Officers of Health and the Vendors.

It is essential that samples should be taken for bacteriological analysis from every purveyor of milk at least once a year, and this is a duty which devolves on the Medical Officer of Health, or Sanitary Inspector of each Local Authority.

TUBERCLE BACILLI IN MILK.—Five samples were taken in 1933, but tubercle bacilli were not found after biological tests ; particulars of samples taken during the period 1926-30 are given on pages 48 and 49, Annual Report for 1930. There is no provision in the County for routine inspection of dairy cows, apart from the Tuberculosis Order of 1925.

MEAT INSPECTION.

This was referred to in detail on page 51, Annual Report for 1925. Some of the slaughter-houses are unsatisfactory. It is important that the Public Health (Meat) Regulations, 1924, should be carried out. There is no Public Slaughter House in the County.

HOUSING.

On page 51, Annual Report for 1925, I gave information in regard to Housing since 1921 ; on pages 35-36, Report for 1927, I gave particulars in regard to defective houses, and the erection of new houses in the different districts, for the 3 years 1924-26 ; and on pages 49 and 50, Report for 1930, in regard to new houses, and also houses dealt with since 1927, under the Housing (Rural Workers) Act, 1926 ; a good deal more could be done under the Act. On page 50, Annual Report for 1930, reference was made to the Housing Act, 1930, which came into operation on August 16th of that year. During 1933, two applications were received for financial assistance, £60 was received in one case, and £75 in the second. In respect of the former, three cottages were made weatherproof, and new drainage was constructed. In regard to the latter, alterations were made to one cottage; these included re-building of an outer wall, provision of a new scullery, bathroom, and wash-house, and connection of water to the premises.

Detailed information is given by the Registrar-General in regard to Housing in his Report on the Counties of Merioneth, Montgomery and Radnor (Part I.), estimated on the census taken on 26-27th April, 1931.

HOUSING AVERAGE.—Particulars are as follows :—

	England Radnorshire. & Wales		
	1921.	1931.	1921.
Rooms per dwelling (occupied and vacant)	6.01	5.90	5.15
Private families per occupied dwelling	1.02	1.03	1.12
Rooms occupied per family...	5.95	5.78	4.55
Persons per room	0.71	0.68	0.91
Persons per private family ...	4.25	3.94	4.14

Particulars in regard to families are as follows :—Families living in a single occupation of separate premises 4,924 (95·4%) ; families living 2 to a dwelling, 180 (3·5%) ; and families living 3 or more to a dwelling 57, (1·1%) ; total 5161.

In Table V. the increasing prominence of the three-person family, and next to that the two-person family, and the reduction in families of eight is shown.

SIZE OF DWELLINGS.—Particulars are as follows :—

	1921.	1931.
	Percentage.	Percentage.
3 rooms or less	12·5	15·1
4-5 rooms ...	40·2	39·5
6-8 rooms ...	32·4	32·1
9 or more ...	14·9	13·3

In 84·9% of the dwellings there were 4 or more rooms (in 45·4%, 6 or more).

OVERCROWDING.—Particulars regarding density of more than 2 persons per room are given by the Registrar-General as follows :—

	Radnorshire.	England and Wales.
	1931.	1921.
Private families with density of more than 2 persons per room	45	64
(Urban 10, Rural 35)		
Percentage to total private families	·87	1·30
Population in such families	314	533
Percentage to total family population	1·54	2·55
		495,283
		5·7
		3,480,273
		9·6

If in calculating overcrowding, 2 adults or 1 adult and 2 children are allowed to each bedroom, the number of families in which there was overcrowding was as follows :—

No. of private families occupying the following number of rooms :

Urban Districts:	1	2	3	4	5	Total.
Knighton ...	—	4	1	5	—	10
Llandrindod Wells ...	—	3	1	1	—	5
Presteigne ...	—	2	2	5	—	9
Total ...	—	9	4	11	—	24
Rural Districts :						
Colwyn ...	—	4	3	5	1	13
Knighton ...	—	5	6	12	5	28
New Radnor ...	—	1	2	12	2	17
Paincastle ...	—	2	—	10	2	14
Rhayader ...	2	10	5	12	2	31
Total ...	2	22	16	51	12	103

The number of houses overcrowded at the time of the census in 1921 was, according to this method of calculation, 165 (urban districts 33, rural 132); there has thus been a reduction in 1931 of 38 houses overcrowded (urban 9, rural 29).

The majority of the overcrowding occurred in houses with 4 rooms or less ; these houses only contain two bedrooms, and there would appear to be a demand for more houses with 3 or more bedrooms.

There are a number of insanitary and overcrowded dwellings in each district, and more active measures are necessary to remedy defects. In the rural districts, with the exception of Rhayader, very few houses have been erected in recent years.

WATER SUPPLIES.

Particulars in regard to districts have been given on pages 44 and 45, Annual Report for 1932, on page 50, Annual Report for 1930, and in previous Reports.

On account of the drought during 1933, attention was directed to adequacy and quality of water supplies in connection with some of the parishes, and schools in the county.

Circular 1338, of the Ministry of Health, dated 12th May, suggested that "County Councils might well take an active part with the Rural District Councils in initiating and carrying out surveys and in setting up in suitable cases joint advisory committees"; it is also suggested that "County Councils might advise Rural District Councils as to the best measures for protecting sources from pollution. The importance of early steps to safeguard supplies from pollution is often overlooked." Attention is also directed to the powers conferred on County Councils to contribute towards the cost of parochial schemes under Sec. 57 of the Local Government Act, 1929.

On account of the large acreage in the County to the population, a large number of houses in the rural districts have separate water supplies, but there are villages in which the supply is unsatisfactory, in regard to adequacy or quality, or both ; particulars of action taken by Rural District Councils, will be given in the next Annual Report.

SEWAGE DISPOSAL, POLLUTION OF RIVERS.

RHAYADER RURAL DISTRICT.—Analyses of samples of sewage effluents show that improvement is needed in the quality of the effluents at Rhayader (apart from Cwmdauddwr Parish, where there is filtration, etc.) which pass into the River Wye. Reference is made to Pollution, on page 51, Annual Report for 1930.

SCAVENGING.

Information was given on page 52, Annual Report for 1930, and on page 45, Report for 1932. Refuse should not be dumped near river banks, with the object of the material being washed into the river; refuse should be deposited on a dump set apart for the purpose, some distance from any river or stream, if it is not destroyed by burning.

BLIND PERSONS' ACT, 1930.

During the year 5 new cases were registered (males aged 68 and 74 years, and females aged 52, 62 and 67). A male aged 75 died during the year.

On December 31st, 1933, there were 40 persons (17 males, 23 females) on the Register, the ages were as follows:—

Males—12, 26, 27, 29, 39, 58 (2), 68 (2), 69, 70, 72, 74, 77 (2), 78 and 83 years.

Females—22, 23, 44, 45 (2), 48, 53, 63, 64, 67, 68 (2), 70, 72, 74, 76 (3), 77, 78, 79 and 84 (2) years.

TRAINING.—There are no persons being trained at the present time.

EMPLOYED.—A male, aged 29 years, repairs boots; two males, aged 27 and 29 years, are employed in brush making and basket making respectively. These three adults up to the end of December, were under a Home Workers' Scheme supervised by the South Wales and Monmouthshire Association for the Blind; a sum of £40 per annum was paid by the County Council, and out of this 10/- per week augmentation allowance was paid to each worker.

Three males follow occupations as follows:—Farm Labourer (aged 26 years), Piano Tuner and Journalist (68), and Innkeeper (69).

UNEMPLOYABLE.—At the end of the year, 2 males received 2/6 and 5/- a week, and 7 females 2/6, 4/-, 5/- (2), 7/6 (2) and 10/- per week, through the Public Health and Housing Committee.

PREVENTION OF BLINDNESS.—No action was taken under Section 66 of the Public Health Act, 1925, for the prevention of blindness or for the treatment of persons suffering from any disease or injury to the eyes; such cases are admitted to the Shrewsbury, Eye, Ear and Throat Hospital.

MENTAL DEFICIENCY.

At the end of the year there were 51 persons (25 males, 26 females) on the Register (apart from those under the Poor Law); mentally defective children, other than Imbeciles, are not included.

There were on December 31st, 9 persons (3 males, 6 females) under Order in Institutions; 2 (1 male, 1 female) were under 16 years, and 7 (2 males, 5 females) were 16 years and over. One male, aged 27 years, was in the Forden Institution, Montgomery, and 2 males aged 12 and 21 years, in the Stoke Park Colony, near Bristol.

There were 5 females aged 15, 21, 37, 38 and 39 years in Pantglas Hall Institution; the female aged 38 years was admitted under Order on January 27th, 1933. A female aged 23 years was transferred from Pantglas Hall to the Royal Fort Hospital, Bristol, on Sept. 15th, 1933.

A male, aged 25 years, died in the Forden Institution, on March 15th, 1933, and a youth aged 18 years under Guardianship in Middlesex, returned to his home in Montgomeryshire on September 9th, 1933. The remainder of the cases are under supervision.

Accommodation is available in Pantglas Hall Institution for trainable females from 7 years upwards. Accommodation is needed for lower grade males and females of both sexes, and for males of all grades.

POOR LAW.—At the end of the year there were 14 persons (4 males, 10 females) in Poor Law Institutions, viz:—Hay 1, Knighton 7, and Rhayader 6.

Thirteen persons (4 males, 9 females) who received outdoor relief, were under supervision.

Information in regard to ages was given on page 46, Annual Report for 1931, and also particulars of cases in the Mid-Wales Counties' Mental Hospital.

TABLE I.
Causes of Death in Administrative Areas in the County
of Radnor for 1933.

Causes of Death	Urban Districts						Rural Districts.										County.		
	Knighton.		Llandri'dod Wells.		Presteigne		Colwyn.		Knighton.		New Radnor.		Painscastle		Rhayader.		M.	F.	Total.
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F			
Whooping Cough					1	1				1					1		1	3	4
Diphtheria ...										1				1				1	1
Influenza ...	1			1						1				1	1		2	3	5
Tuberculosis of respiratory system			2	1	1		1	1					1	1	3	1	2	4	14
Other tuberculous diseases ...			1		1						1		1		2		4	2	6
Syphilis ...											1						1		1
General paralysis of the insane, tabes dorsalis ...			1															1	1
Cancer, malignant disease ...	1	1	2	2	3	2	1		6	2	1			2	2	2	16	11	27
Diabetes ...			1	1						1					1	1	2	3	5
Cerebral hæmorrhage, &c. ...	1	1	2	2	1	1	1	1	1		1	1	1	1	1		8	8	16
Heart disease ...	2	6	4	3	1	1	2	5	4	4	4	3	2	7	9	9	28	38	66
Other circulatory diseases ...	2			2							2		1		1		6	2	8
Bronchitis ...	2	1							1			2	1	2			4	5	9
Pneumonia (all forms)	1	1		1			1			1		1			2		2	6	8
Diarrhœa, &c. (under 2 years)												1						1	1
Cirrhosis of liver ...														1				1	1
Other diseases of liver, etc. ...														1				1	1
Other digestive diseases ...									1	1	1				1		2	2	4
Acute and chronic nephritis ...	1										1				1		3		3
Puerperal Sepsis ...										1								1	1
Congenital debility premature birth, malformations, &c.	1						2	1	1			1	1	2	1		6	4	10
Senility ...	4	1							4	2					1		8	4	12
Suicide ...					1	1											1	1	2
Other violence ...			2	1			1		3				1		1		8	1	9
Other defined diseases ...	2	2	3	2	2	2	2	1	1	2		2	1	1	6	2	17	14	31
Causes ill-defined or unknown...															1		1		1
All causes ...	18	17	15	17	9	9	11	8	22	16	12	12	9	20	28	23	124	122	246

TABLE II.

Causes of Death at different periods of life in the County of Radnor, 1933.

Aggregate of Urban Districts.

Causes of Death.		All ages	0-	1-	2-	5-	15-	25-	35-	45-	55-	65-	75-
Whooping Cough	M.	1	1										
"	F.	1	1										
Diphtheria	M.												
"	F.												
Influenza	M.	1	1										
"	F.	1											1
Tuberculosis of	M.	1									1		
Respiratory System	F.	4				1		2	1				
Other Tuberculous	M.												
diseases	F.	2				1		1					
Syphilis	M.												
"	F.												
General paralysis of the	M.												
insane, tabes dorsalis	F.	1								1			
Cancer, malignant	M.	6			1			1	1			1	2
disease	F.	5							1			1	3
Diabetes	M.	1											1
"	F.	1										1	
Cerebral	M.	4										1	3
Hæmorrhage, &c.	F.	4								1		1	2
Heart disease	M.	7									3	2	2
"	F.	10										4	6
Other circulatory	M.	2									1	1	
diseases	F.	2											2
Bronchitis	M.	2											2
"	F.	1											1
Pneumonia (all forms)	M.	1									1		
"	F.	2										2	
Diarrhœa, etc, (under	M.												
two years)	F.												
Cirrhosis of liver	M.												
"	F.												
Other diseases	M.												
of the liver, etc	F.												
Other digestive	M.												
diseases	F.												
Acute and	M.	1											1
chronic nephritis	F.												
Puerperal sepsis	F.												
Congenital debility, premature	M.	1	1										
birth, malformations, etc.	F.												4
Senility	M.	4											1
"	F.	1											
Suicide	M.	1								1			
"	F.	1											
Other violence	M.	2				1							1
"	F.	1										1	
Other defined	M.	7				1	1		1		1	1	2
diseases	F.	6								3		1	2
Causes ill-defined	M.												
or unknown	F.												
All causes	M.	42	3			3	1		2	2	7	6	18
"	F.	43	1				2		4	7		11	18

TABLE II.—continued.

Causes of Death at different periods of life in the County of Radnor, 1933.

		Aggregate of Rural Districts.												
Causes of Death.		All ages	0-	1-	2-	5-	15-	25-	35-	45-	55-	65-	75-	
Whooping Cough	M.													
"	F.	2	2											
Diphtheria	M.													
"	F.	1							1					
Influenza	M.	1						1						
"	F.	2								1	1			
Tuberculosis of	M.	3					2	1						
Respiratory System	F.	6					3	2				1		
Other Tuberculous	M.	4		1			1	1			1			
diseases	F.													
Syphilis	M.	1								1				
"	F.													
General paralysis of the	M.													
insane, tabes dorsalis	F.													
Cancer, malignant	M.	10						1			4	3	2	
disease	F.	6								2		2	2	
Diabetes	M.	1											1	
"	F.	2									1		1	
Cerebral	M.	4										3	1	
Hæmorrhage, &c.	F.	4								1		1	2	
Heart disease	M.	21						1		1	4	11	4	
"	F.	28								1	4	8	15	
Other circulatory	M.	4										4		
diseases	F.													
Bronchitis	M.	2										1	1	
"	F.	4	1					1					2	
Pneumonia (all forms)	M.	1									1			
"	F.	4	1	1									2	
Diarrhœa, etc, (under	M.													
two years)	F.	1	1											
Cirrhosis of liver	M.													
"	F.													
Other diseases	M.													
of the liver, etc	F.	1									1			
Other digestive	M.	2								1	1			
diseases	F.	2											2	
Acute and	M.	2										1	1	
chronic nephritis	F.													
Puerperal sepsis	F.	1					1							
Congenital debility, premature	M.	5	5											
birth, malformations, etc.	F.	4	3	1										
Senility	M.	4										2	2	
"	F.	3											3	
Suicide	M.													
"	F.													
Other violence	M.	6					2				1		3	
"	F.													
Other defined	M.	10						1		1	3	3	2	
diseases	F.	8			1					2	1	3	1	
Causes ill-defined	M.	1										1		
or unknown	F.													
All causes	M.	82	5	1			5	6		4	15	29	17	
"	F.	79	8	2	1		4	3	1	7	8	15	30	

TABLE III.
RADNORSHIRE.

DISEASE.	Urban Districts.		Rural Districts.		County.	
	1911-20	1921-30	1911-20	1921-30	1911-20	1921-30
Congenital Debility, Premature Birth, Malformations, etc. ...	41 (41·4)	26 (30·2)	125 (35·3)	102 (33·7)	166 (36·6)	128 (32·9)
Tuberculosis ...	4 (4·0)	— —	3 (·8)	1 (·3)	7 (1·5)	1 (·3)
Infectious Disease (other than Tuberculosis) ...	6 (6·1)	1 (1·2)	19 (5·4)	9 (3·0)	25 (5·5)	10 (2·6)
Respiratory Disease ...	8 (8·1)	1 (1·2)	22 (6·2)	26 (8·6)	30 (6·6)	27 (6·9)
Diarrhœa, etc. ...	1 (1·0)	4 (4·6)	9 (2·6)	14 (4·6)	10 (2·2)	18 (4·6)
Violence ...	— —	2 (2·3)	3 (·8)	4 (1·32)	3 (·7)	6 (1·5)
Other Diseases ...	14 (14·1)	5 (5·8)	63 (17·8)	23 (7·6)	77 (17·0)	28 (7·5)
	74 (75)	39 (45)	244 (69)	179 (59)	318 (70)	218 (56)

The figures in brackets are rates per 1,000 live births.

INDEX.

	PAGE
Area	6
Bacteriological Work	44, 46
Birth Rate	6
Blind Persons' Act, 1930	51
Cancer	39
Clinics	41
Death-rate	9
Death, causes of	11
Diphtheria	27, 28
Food and Drugs Act	45, 46
General Sanitation	48, 51
Health Visiting	23
Hospitals	18, 41
Housing	48
Infantile Mortality	5, 12
Infant Welfare Centres	24, 25
Infectious Diseases	27, 32
Influenza	29
Isolation Hospitals	31
Measles	29
Meat Inspection	48
Milk Supply	46, 48
Mental Deficiency	52
Maternity and Child Welfare	17
Midwives' Act	20
Maternal Mortality	19
Nursing Homes	16
(Annual Report, 1929)	
Occupation	6
Ophthalmia Neonatorum	31
Orthopædic Scheme	26
Phthisis	33
Poor Law Institutions	41, 44
Puerperal Fever and Pyrexia	31
Respiratory Disease	39
Rateable Value	7
(Annual Report, 1930)	
Scarlet Fever	28
Scavenging	51
Sewage Disposal	50
Smallpox	30
Statistical Tables	53, 55
Suicide	47
(Annual Report, 1931)	
Tuberculosis	32, 38
Venereal Diseases	38
Violence	47
(Annual Report, 1931)	
Water Supplies	50
Whooping Cough	29

